DISTO
SUPER PRODUCTS

SUPER
RAM DISK
OS-9

MANUFACTURED & DISTRIBUTED BY

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DISTO SUPER RAMDISK OS-9 DRIVER

CONGRATULATIONS! Not only do you own one of the first and best of the 256K RAM cartridges for the CoCo, but you now own something that will change your OS-9 world; the DISTO OS-9 Ramdisk Driver.

FEATURES:

To get the full use of ram, the DISTO OS-9 Ramdisk Driver by default emulates a single-sided, 16 track floppy disk with 64 sectors per track. Anything that you can do with a floppy disk, you can do with the Ramdisk. Instead of using "/D0", "/D1", etc. use the Ramdisk's name, "/R0".

The Ramdisk is compatible with all known utility commands and applications for OS-9. If you want to use the BACKUP command to copy your floppies to the Ramdisk, see Dale Puckett's article. (Included).

The big advantage to using a Ramdisk is SPEED! The total time to read/write a sector on the Ramdisk is less than 5/1,000 of a second!! This makes floppies look even slower than they actually are. Even if you own one of the Hard Disks available for the CoCo, your Ramdisk will run rings around it!

If you REALLY want to get spoiled, get another DISTO SUPER RAMDISK (you can have up to three in your system)!!

A word of warning!! Because the Ramdisk's contents will be lost when the power to your computer is off, you should regularly copy to floppies any files that have been updated!

GETTING UP & RUNNING:

Type:

LOAD LOAD <ENTER>

Then place the Ramdisk master disk in drive 0, and type:

LOAD /D0/RAMDISK <ENTER>

This places the device driver ("RAMPAK") and the device descriptor ("R0") into memory. At this point, though, the system doesn't have R0 locked into place. It will need to be LINKed. To do this, place your system disk back into drive 0, and type:

LINK R0 <ENTER>

Your Ramdisk is now installed, but it is like any blank floppy disk, it must be formatted before it can be used. This does not need to be done upon rebooting OS-9, unless the power is turned off. Type:

FORMAT /R0 R "OS-9 Ram Disk" <ENTER>

This uses two options of the FORMAT command that are undocumented in any RS manuals to this date. The "R" on the command line tells FORMAT that you are <R>eady and that it doesn't need to ask you. The "OS-9 Ram Disk" gives FORMAT the name that you want for the disk, without asking you.

Okay, now give it a try! Type:

DIR /R0 <ENTER>

You should get a blank directory. Try a few commands with it, like COPYing a few files, and DELeting them.

THE "INIT.RAMDISK" FILE:

There is another file on the Ramdisk master disk named "INIT.RAMDISK". This is a sample procedure file that FORMATs the Ramdisk and copies the CMDS directory from a standard RS OS-9 disk onto the Ramdisk. After using this, type:

CHX /R0/CMDS <ENTER>

You will now have all of the standard utilities running from Ramdisk.

This file can be changed to include the files that you prefer. Use it as a sample to create your own.

INSTALLATION:

The Ramdisk can be permanently installed as a part of your OS9BOOT file. If you are using version 2 of OS-9, you may wish to skip this section and read the section titled, "SPECIAL VERSION 2 INSTALLATION". Version 1.xx.xx users can make a new bootfile easily, also, using these instructions. First, place a single-sided system disk in drive 0 (if you are using double-sided drives, make a stripped-down single-sided version of your system disk). Then type:

```
COPY /D0/RAMDISK /D0/CMDS/RAMDISK -S <ENTER>
COPY /D0/INIT.RAMDISK /D0/INIT.RAMDISK -S <ENTER>
COPY /D0/BOOT.SET /D0/BOOT.SET -S <ENTER>
COPY /D0/BOOTLIST /D0/BOOTLIST -S <ENTER>
```

These four commands will prompt for you to change disks. When you are asked for the SOURCE disk, place the Ramdisk master disk in drive 0. When you are prompted for the DESTINATION disk, place your system disk in drive 0. After these files are copied, make

sure that your Ramdisk is freshly formatted (if not, FORMAT it again), and type:

```
CHD /D0 ; DSAVE -B -S12 /D0 ! (CHD /R0) <ENTER>
```

Now stand back and watch the Ramdisk go!! This is copying the entire contents of your system disk onto the Ramdisk. Don't worry, it won't take long! When this is done, place a blank disk in drive 0 and type:

```
CHX /R0/CMDS ; CHD /R0 ; BOOT.SET <ENTER>
```

When all of the activity stops, the disk in drive 0 will be a copy of your original disk, containing the Ramdisk modules in the OS9BOOT file.

To test this disk out, hit the reset button on the CoCo and reboot OS-9 on this new system disk. The files that you copied to the Ramdisk will still be there (Try it; type "DIR /R0").

USER-MODIFICATION:

The size of the Ramdisk is determined by the IT.SCT and IT.CYL bytes of the device descriptor. The R0 descriptor used when you "LOAD RAMDISK" is set to a 16 track, single sided floppy with 64 sectors. While this configuration uses all of the ram disk's memory, it is not very fast in transfering complete disks. To get fast coppies of floppies onto your Ramdisk, read Dale Puckett's article on "Backup Your Floppies to Your Disto Super Disto Ram Disk in Record Time." It is included with your Ramdisk package.

The suggested descriptors are located in the MODULES directory. For a description of these descriptors, read the section of this documentation titled, "DESCRIPTORS".

Using one of these descriptors as a guide, the IT.SCT (and IT.TOS) values should be 64 ($40). With this value, if you have 256K in your DISTO SUPER

RAMDISK, set IT.CYL to 16 ($10). For a 512K model, set IT.CYL to 32 ($20). If you are fortunate enough to have either 768K or 1024K in your cartridge, the values are 48 ($30) and 64 ($40), respectively.

The offset for IT.SCT is $1B. IT.TOS's offset is $1D, while IT.CYL's offset is $17.

As an example, if you have been using one of the 256K descriptors (R0_x_256.dd) and you upgrade your SUPER RAMDISK to 512K, enter DEBUG and type in the following:

```
L R0 <ENTER>
. .+17 <ENTER>
= 0 <ENTER>
= 20 <ENTER>
q <ENTER>
```

The preceeding will change IT.CYL to 32 ($20) for a 512K ramdisk! IT.SCT and IT.TOS are not changed.

Also modifiable is the Slot # that you locate your DISTO SUPER RAMDISK in. This is determined by the IT.DRV byte of the descriptor. Set IT.DRV to the SLOT number - 1. For example, to change a descriptor set for SLOT 1 to SLOT 2, enter DEBUG and:

```
L R0 <ENTER>
. .+13 <ENTER>
= 1 <ENTER>
q <ENTER>
```

SPECIAL VERSION 2 INSTALLATION:

Included with version 2 of CoCo OS-9 is a utility named CONFIG. This is by far the easiest way to generate new bootfiles, and it is recommended that you use this to make yours. First copy the files in the MODULES directory of this installation disk into your MODULES directory of your CONFIG disk. There are many descriptors included for most of your needs. You may

simply copy one, or a few of these if you wish. Then follow the instructions for the CONFIG utility, selecting the RAMPAK driver and the desired R0 descriptor.

DESCRIPTORS:

In the MODULES directory, there are many descriptors for your use. Their name tells you what they are. The format is "Rn_s_kkk.DD". The "n" is the drivename-number (R0, R1, R2). Since you can have up to three DISTO SUPER RAMDISKS in a system, you will need different names if you have more than one.

The "s" is the Slot ± desired (1-3). The "kkk" is the memory size (256,512). The "DD" is to tell CONFIG that this is a Device Descriptor.